



Environmental Measurements Laboratory

"A Federal Resource"

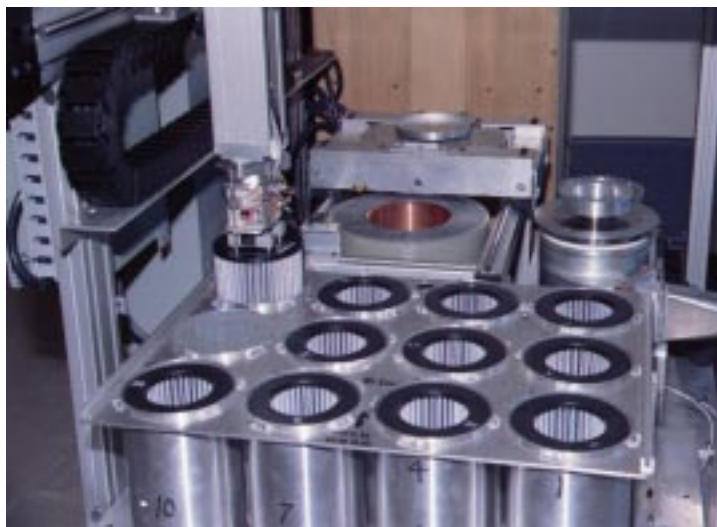
AUTORAMP II

REMOTE ATMOSPHERIC MEASUREMENTS PROGRAM



- Unique sample cartridge can be made with any filter medium
- Individual filters allow isolating and recounting of any sample, standard or background
- Proven "mechanical arm" technology used extensively in industry
- Completely maintenance free
- Tray of 31 filters, a standard and a background, requires only 5 minutes for a monthly or quarterly reloading
- Two way communication allows instant data reporting and complete system control by a data center
- Small footprint - 1 m x 2 m
- Modular design, assembled with commercially available components
- System "state of health" can be assessed by meters and indicators on-site and by remote communications

AUTORAMP II, the result of a significant redesign of the original AUTORAMP, is a fully automated and completely unattended gamma-ray analysis system that collects large volume aerosol samples on discrete pleated cartridge filters, measures these samples in a near ideal geometry with a refrigerator cooled Germanium detector, and immediately transmits the resultant spectra to a data center, using either a satellite-telephone link or land telephone lines if available.



- 2,500 to 12,000 m³ of air sampled per day
- System controlled by a single computer using a program written in C++
- 2.5 to 4.0 kW power; 840 lb. system weight
- A bar code reader keeps track of sample information
- A closed circuit video camera and light source permits visual inspection of the mechanism and the site area
- A security system using a passive infra-red/microwave detector and a video camera alerts the data center to possible tampering attempts
- Flexibility of physical layout allows installation in limited spaces

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